

## CLAIMS

What is claimed is:

1. A method of making a cDNA expression library enriched for cDNAs that encode secretory or membrane-bound proteins, comprising the steps of:
  - a. isolating membrane bound polysomal RNA from a selected population of cells;
  - b. isolating polyadenylated RNA from the isolated membrane-bound polysomal RNA from step (a);
  - c. constructing a cDNA expression library from the isolated polyadenylated RNA from step (b),  
wherein the cDNA expression library comprises more than 90% cDNAs that encode secretory and membrane-bound proteins.
2. The method of claim 1, wherein the membrane bound polysomal RNA of step (a) is isolated by homogenizing the selected population of cells in a high salt buffer to form a homogenate, wherein the homogenate is centrifuged to form a supernatant, and wherein the supernatant is fractionated by centrifugation through a sucrose gradient to isolate the membrane-bound polysomal RNA.
3. The method of claim 2, wherein the high salt buffer lacks a detergent additive.
4. The method of claim 2, wherein the supernatant is fractionated through an inverted ultra-centrifugation step.
5. The method of claim 1, wherein the polyadenylated RNA is isolated by an oligo-dT cellulose affinity purification step.
6. The method of claim 1, wherein the cDNA expression library is constructed in a vector selected from the group consisting of pcDNA3 and pRK7.
7. The method of claim 6, wherein the expression vector is pRK7.
8. The method of claim 1, wherein the selected population of cells comprises neurons.

9. The method of claim 8, wherein the neurons are sensory neurons.
10. The method of claim 8, wherein the sensory neurons are dorsal root ganglion neurons.
11. The method of claim 8, wherein the sensory neurons are cranial nerve sensory ganglion neurons.
12. The method of claim 11, wherein the cranial nerve sensory ganglion neurons are trigeminal ganglion neurons.
13. A cDNA expression library made by the method of claim 1.
14. A method of screening for selected membrane-bound proteins or secretory proteins, comprising the steps of:
  - a. contacting the proteins expressed by the cDNA expression library of claim 13 with a marker that binds the selected membrane-bound proteins or secretory proteins;
  - b. detecting the bound marker, the bound marker indicating the presence of selected membrane-bound proteins or secretory proteins.
15. A method of screening for cDNAs that encode selected membrane-bound proteins, comprising the steps of:
  - a. contacting the cDNA expression library of claim 13 with a nucleic acid that selectively hybridizes under stringent condition with cDNA that encodes selected membrane-bound proteins;
  - b. detecting the hybridizing cDNA, the hybridizing cDNA indicating the presence of the cDNAs that encode the selected membrane-bound proteins.
16. A method of screening for agents that modulate selected membrane-bound proteins or secretory proteins, comprising:
  - a. contacting the agent to be screened with membrane bound proteins or secretory proteins selected by the method of claim 14;

b. detecting an increase or decrease in a selected function of the membrane-bound or secretory proteins as compared to the selected membrane-bound proteins or secretory proteins in the absence of the agent, an increase or decrease in function indicating an agent that modulates the selected membrane-bound or secretory proteins.

17. The method of claim 16, wherein the selected function of the membrane-bound or secretory proteins is specific binding to an agonist, antagonist, modulator, or co-factor.

18. The method of claim 16, wherein the selected function of the membrane-bound or secretory proteins is specific activity.

19. The method of claim 18, wherein the specific activity is channel activity.

20. The method of claim 18, wherein the specific activity is metabotropic activity.

21. The method of claim 18, wherein the specific activity is enzyme activity.

22. The method of claim 16, wherein the selected function of the membrane-bound or secretory proteins is specific binding to a co-factor.

23. The method of claim 16, wherein the selected function of the membrane-bound or secretory proteins is intracellular signaling.

24. The method of claim 16, wherein the contacting step comprises contacting a cell that expresses the membrane bound proteins or secretory proteins.

25. A method of screening for agents that modulate expression of selected membrane-bound proteins or secretory proteins comprising:

- a. contacting the agent to be screened with a test cell that expresses the selected membrane-bound or secretory proteins encoded by the cDNAs identified by the method of claim 15;
- b. detecting an increase or decrease in expression of the membrane-bound or secretory proteins as compared to the selected membrane-bound proteins or secretory proteins in the absence of the agent , an increase or decrease in expression indicating an agent that modulates expression of the selected membrane-bound or secretory proteins.

26. A method of screening for agents that modulate expression of selected membrane-bound proteins or secretory proteins, comprising:

- a. contacting the agent to be screened with a test cell that expresses the selected membrane-bound or secretory proteins identified by the method of claim 14;
- b. detecting an increase or decrease in expression of the membrane-bound or secretory proteins in the test cell as compared to expression of the selected membrane-bound proteins or secretory proteins in a control cell in the absence of the agent, an increase or decrease in expression in the test cell indicating an agent that modulates expression of the selected membrane-bound or secretory proteins.

27. A method of screening for agents that modulate expression of selected membrane-bound proteins or secretory proteins, comprising:

- a. contacting the agent to be screened with a test cell that expresses the selected membrane-bound or secretory proteins;
- b. comparing nucleic acid expression by the cell with the cDNAs identified by the method of claim 15, an increase or decrease in expression by the test cell as compared to the expression by a control cell in the absence of the agent indicating an agent that modulates expression of the selected membrane-bound or secretory protein.

28. A microarray comprising the cDNAs from the expression library of claim 11.

29. A cDNA expression library comprising more than 90% cDNAs that encode secretory and membrane-bound proteins.

30. A method of screening a microarray of nucleic acids, comprising contacting the nucleic acids of the microarray with the cDNAs of the cDNA expression library of claim 29.